

ST GEORGE FIELD OFFICE
WASHINGTON COUNTY

STATUS OF PUBLIC
LAND AND MINERAL INTERESTS

[illegible]

FOR ORDERS AFFECTING DISPOSAL OR USE OF
UNIDENTIFIED LANDS WITHDRAWN FOR CLASSIFICATION,
MINERALS, WATER AND/OR OTHER PUBLIC PURPOSES,
REFER TO INDEX OF MISCELLANEOUS DOCUMENTS.

COLLIER

OCT 10 2006

CURRENT TO	PV	PS
7-13-2006		

37°12'05"N
113°05'10"W

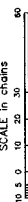
Lat	Long
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UNCLASSIFIED

WARNING STATEMENT

This plot is the Bureau's Record of Title, and should be used only as a graphic display of the Township survey data. Records herein do not reflect title changes which may have been effected by lateral movements of rivers or other bodies of water. Refer to the cadastral surveys for official survey information.

SCALE in chains



M/053 "Gen Corres"
Washington

**U.S. Department of the Interior
Bureau of Land Management**

Environmental Assessment UT- 100-06-EA-11

VIRGIN COMMUNITY PIT

***Location:* WASHINGTON COUNTY, UTAH**

***Applicant/Address:* U. S. Bureau of Land Management, St. George Field Office**

U.S. Department of the Interior
Bureau of Land Management
St. George Field Office
345 E. Riverside Drive
St. George, Utah 84790
Phone: (435) 688-3200
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INTRODUCTION AND NEED FOR THE PROPOSED ACTION

INTRODUCTION

This document is prepared in compliance with the National Environmental Policy Act (NEPA). Its purpose is to analyze the impacts of the proposed action, alternatives, and recommend mitigation measures that would eliminate or lessen environmental impact.

Background

Mining of flagstone has taken place in the Virgin Flagstone Community Pit area since the late 1980's. The purpose for establishing the pit was to provide a local source of flagstone to the community. Both short and long term contracts to remove mineral materials are issued to the general public and to commercial operators. Mineral materials are sold at fair market value, which is determined through appraisal. Approximately 33 acres have been affected by mining to date, within a designated area of 460 acres (Photograph 1-Appendix B). This EA will analyze the environmental impacts of mining of flagstone for the proposed 240 acre sales area within the 460 acres designated.

NEED FOR THE PROPOSED ACTION

The proposed mineral material mining operations on 240 acres within the Virgin community pit is located approximately 1 mile southwest of Virgin, Utah and 2.5 miles northeast of Hurricane, Utah, in T. 41 S., R. 12 W., sec. 29 SE1/4 and the E1/2SW1/4, in Washington County, Utah (Figure 1). The BLM St. George Field Office has issued over 500 contracts for 6,000 tons of flagstone from the Virgin community pit during FY 2005 and demand is expected to increase in the future. The BLM St. George Field Office completed a Categorical Exclusion 92-17 for general operations and Categorical Exclusion 03-13 for a negotiated sale within the Virgin community pit that are no longer sufficient for the size and scope of the operations. This assessment will evaluate the impacts for the expanded operations and the potential sale of 2 million tons, through competitive/negotiated sales, small (less than \$2000.00) over the counter sales and free use permits from the Virgin community pit.

Mineral materials are not readily available on private lands and this community pit represents a local source flagstone for St. George and the Washington County area. Washington County is rapidly growing and the current and planned development projects will increase demand for all mineral materials. In addition, these flagstone products are transported to Salt Lake City, Utah area and nearby Clark County, Nevada for the rapidly developing communities of Mesquite and Las Vegas. Mineral material sales may be

made as long as the aggregate damage to public lands and resources would not exceed the benefits derived from the proposed sale (43 CFR 3600.0-4).

CONFORMANCE WITH BLM LAND USE PLAN(S)

The proposed action is in conformance with Federal Regulations and Bureau Policies. The action conforms to the St. George Field Office Resource Management Plan, signed March 1999, Objective MI-12, page 2.9.

RELATIONSHIPS TO STATUTES, REGULATIONS AND OTHER PLANS

The Act of July 31, 1947, as amended (30 U.S.C. 601 et seq.) gives authority for the disposal of mineral materials from public lands of the United States. Section 302 of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1732) directs the Secretary to manage public lands under the principles of multiple use and sustained yield in accordance with land use plans developed under the act.

The 43 CFR 3600 regulations establish procedures for the exploration, development and disposal of mineral material resources under permit or contract for sale, or free use. Subpart 3604 deals with community pits and common use areas, while Subpart 3610 deals with mineral material sales.

Activities occurring on public lands are subject to all Federal, State and local regulations concerning health and safety. Zoning laws or ordinances do not apply to Federally managed lands.

PROPOSED ACTION AND DESCRIPTION OF ALTERNATIVES

INTRODUCTION

The Virgin Community Pit site is located approximately 1 mile southwest of Virgin, Utah and 2.5 miles northeast of Hurricane, Utah (Figures 1 and 2). The Community pit is established on a relatively flat low lying bench in the Virgin River valley area between Hurricane Mesa to the north and Gooseberry Mesa to the south. The community pit site is also ½ mile to 1 mile south of the Virgin River. Elevations range from 3,520 ft in a dry northeast trending drainage that cuts through the central of the pit to 3,640 ft along the relatively flat southern boundary. (Figure 2). The Virgin community pit area is contiguous with Federally owned lands administered by the U.S. Bureau of Land Management on the west, north and east and with private property on the south.

The pit is located on a relatively flat low lying bench in a limestone bed at the base the Lower Red Member of the Triassic age Moenkopi Formation. The Moenkopi Formation consists of six members in southwestern Utah in ascending order, the Rock Canyon Conglomerate Member, the Timpoweap Member, the Lower Red Member, Virgin Limestone Member, the Middle Red Member, the Shnabkaib Member, and the Upper Red Member. The Moenkopi Formation is comprised primarily of mudstones and siltstones with areas of interbedded limestone, gypsum, and gypsiferous units.

The mined limestone bed is found at the base the Lower Red Member approximately 15 feet above the top of the resistant thick tan sandy limestone/calcareous sandstones of the Timpoweap Member (Photograph 2-Appendix B). The limestone varies from tan to yellowish gray to gray on parting surfaces while the interior of the bed is a hard, dense, finely crystalline limestone. The limestone bed contains very thin mudstone layers that allow relatively easy parting along the bedding planes to produce the commercial flagstone products.

Operations :

The proposed extraction of flagstone from the Virgin Community pit is by simple open pit methods. The commercial operations would consist of an excavator (track-hoe), front end-loader or fork-lift, and haul trucks. Overburden ranging from 2 ft to 10 ft consisting of soil, mudstone and siltstone would be stripped away to expose the bedded limestone (Photograph 3-Appendix B). The total depth of the pit is limited to about 15 ft due to the thinness of the suitable limestone beds and the amount of overburden that can easily and economically be removed. The thickness of the suitable limestone beds range from 3 to 5 ft (Photograph 4-Appendix B) over the current active area of the pit. The limestone splits along thin mudstone bedding planes as it is pulled up with the excavator bucket. The limestone slabs ranging from 1 inch to 12 inches thick would be then sorted and palletized (Photograph 5-Appendix B). The 1 to 3 inch material is used for patios and facing while the thicker material is used for steps and benches. Some higher value large slabs as much as 6 ft long are also produced using this method. The majority of the contracts would be issued to individuals for small 1 to 5 ton "over the counter" contracts where the flagstone is produced using hand tools from previously disturbed commercial operation areas.

In addition to the flagstone products, the sale of aggregate or fill materials are planned from the previously disturbed areas (Photograph 6-Appendix B). These operations may require an impact type crusher to produce the final sized product. The aggregate operations would also produce a waste product that would be more suitable material for grading during reclamation.

Water trucks, scales, service vehicles and personal vehicles would also occupy the site at various times. Water, magnesium chloride, lignin sulfate, asphalt and other dust suppressants would be used during mining activities as needed. All dust palliative applied must be not prohibited for ground surface application by the EPA, the Utah

Department of Environmental Quality (UDEQ) or any applicable law or regulation, as treatment material for reducing fugitive dust emissions. All operations would have to use best available control technology to meet air quality regulations.

The Virgin Community pit contains approximately 33 acres that have been disturbed by past mining and is currently divided into two active areas (Figure 1). A southern public area consisting of 21 disturbed acres and northern negotiated sale area that consists of 12 disturbed acres.

The Virgin Community pit was estimated to contain a resource of about 2 million tons of flagstone. The calculation was made assuming an average thickness of flagstone of 4 ft over a mineable area of 150 acres. The mineable area was estimated by subtraction of the previously mined area and part of the wash areas where the limestone beds have been removed by erosion. The tonnage figure is based on an estimated conversion factor of 2.2 tons/cubic yard bank.

Estimated current usage of 6,000 tons of flagstone from the community pit could be expected to increase to as much as 30,000 tons per year (including aggregate sales) with an operational lifetime of over 50 years. All sales would be at fair market value and in accordance with regulations. Contracts and permits expire when either the tonnage limitations are reached or the expiration date is met, whichever comes first.

Reclamation :

Reclamation would be accomplished by grading or re-contouring the site. Once the deposit is mined out most of the pit area would be level with the surrounding surface. Due to the thin nature of the suitable limestone, no large pit with highwalls would be developed and reclamation would mainly involve moving and leveling old spoil piles. As mining advances, previously disturbed areas would be backfilled, graded, and seeded. Any remaining pit slopes would be graded to blend with surrounding areas, and generally would not exceed 15 degrees. Disturbed areas would be seeded with an authorized seed mixture to reestablish vegetation. Some plants may also be selected from the surrounding area for transplantation. Reclamation would either be completed by the BLM using monies collected for reclamation purposes or by the operators as part of their bond release obligation.

The Bureau of Land Management has planned for a possible post mining use for part of the reclaimed pit as a parking area to access the Hurricane Cliffs trail system. The Hurricane Cliffs trail system is recreational trail system encompassing 54 acres to meet the public need for hiking, mountain biking, rock climbing, and equestrian use.

No Action-"Pit Closure" - Alternative

Under this alternative general sales and permits would cease and the site would eventually be reclaimed. This alternative would be in conflict with the current St George

Resource Management Plan and 43 CFR 3600 regulations, unless there is a showing that the aggregate damage to public lands and resources would exceed the benefits derived from the sale of the mineral materials. Mineral materials are not readily available on private lands and this community pit has produced flagstone for construction and landscaping uses since the 1980's. This alternative would remove a source of needed mineral materials for the rapidly growing St. George area and would be preferred only if undue or unnecessary degradation were shown likely to occur to a resource.

AFFECTED ENVIRONMENT CHAPTER 3

INTRODUCTION AND GENERAL SETTING

The affected environment of the Proposed Action and No Action alternatives were considered and analyzed by an interdisciplinary team as documented in the Interdisciplinary Team Analysis Record Checklist, Appendix A. The checklist indicates which resources of concern are either not present in the project area or would not be impacted to a degree that requires detailed analysis. Critical Elements of the Human Environment are those elements that are subject to the requirements specified in statute, regulation, or executive order, and must be considered in all EAs (BLM H-1790-1, Appendix 5). Critical Elements of the Human Environment that were considered for this action are shown in the table below and are included in Appendix A. Resources, including Critical Elements, which could be impacted to a level requiring further analysis are described in Chapter 3 and impacts on these resources are analyzed in Chapter 4 below.

The Virgin Community pit is located on the southwestern edge of the Colorado Plateau Physiographic Province in the High Plateaus Section near the contact with the Transition Zone between the Colorado Plateau and Basin and Range Physiographic Provinces. (Photograph 1-Appendix B). The Virgin community pit is established on a relatively flat low lying bench in the Virgin River valley area between Hurricane Mesa to the north and Gooseberry Mesa to the south. The community pit site is also ½ mile to 1 mile south of the Virgin River gorge.

The area soils have been classified as rock land and southern semi-desert shallow loam and supports desert shrubs (primarily creosote-blackbrush), grasses, and cactus (Photograph 1- Appendix B). Soil overburden ranges from a thin veneer with abundant stones and boulders to a loamy soil or gypsiferous loamy soil to a depth of about 1.5 ft. The climate is semiarid and the average yearly precipitation ranges from 8 to 12 inches per year. Winters are mild and summers are mostly hot with average annual temperatures around 56° F, and transitory extremes are generally range from 20° F to 105° F.

Most species occurring in the project area are common and widespread in distribution. Wildlife consisting of mule deer, coyotes, rabbits and other rodents, small reptiles, raptors and assorted birds are present in the area.

The area associated with this project is currently sparsely developed. The community pit is now within the corporate boundaries of the Town of Virgin and several developments are currently planned along State Highway 9.

Declaration of No Effects

The area under consideration would not affect any Areas of Critical Environmental Concern, prime or unique farm lands, Native American Religious Concerns, hazardous or solid wastes, drinking or ground water, wetlands or riparian zones, recreation, wild and scenic rivers, floodplains, migratory birds, noxious weeds, designated wilderness or environmental justice issues.

Table showing elements of the affected environment that were considered for the proposed action:

Element	Affected?		Element	Affected?	
	Yes	No		Yes	No
ACEC's		X	Noxious Weeds		X
Air Quality	X		T & E		X
Cultural		X	Wastes Hazardous / Solid		X
Environmental Justice		X	Water Quality		X
Farm Lands, Prime / Unique		X	Wetlands and Riparian		X
Floodplains		X	Wild and Scenic Rivers		X
Livestock		X	Recreation		X
Nat. Amer. Religious Concerns		X	Wilderness		X
Visual		X	Migratory Birds		X

CHAPTER 4

ENVIRONMENTAL IMPACTS

DIRECT AND INDIRECT IMPACTS

PROPOSED ACTION

Air Quality:

Air quality would be impacted by operations. Dust and other air pollutants would be generated during mining and reclamation. Operations such as clearing of vegetated areas, ripping with bulldozers, transportation of materials to processing areas, processing of materials (crushing/screening) and loading of materials for transport to market would all generate particulate matter.

Sources of CO at the proposed site include the operation of heavy equipment, such as generators, bulldozers, front-end loaders, and haul trucks. Other sources would be employee and service vehicles, although these would represent a small source when compared to the heavy equipment. Sources of CO would also be generated away from the site, by travel to and from the pit by employees and service vehicles.

Production of CO within the site area will be variable. Typically, with small operations, use of equipment will be in concentrated periods. A dozer may be used for several hours to rip and push up materials and then not run for a number of hours, or the rest of the day. Processing equipment will be used to produce materials for stockpile or to meet the days projected usage. A front end loader would be used to move material to the processing equipment and to load material onto trucks for removal from the pit area. This would be typical of the operations occurring on this project.

Although dust, specifically particulate matter less than or equal to 10 micrometers (PM₁₀) and carbon monoxide (CO) are a concern, the site is not within a non-attainment area and proper dust control can mitigate those effects.

Visual:

VRM class IV objectives are applied to established mineral material sites and the level of change to the landscape can be high. Although mining of the site and the pit area would be visible, once mining is complete most of the pit area would be level with the surrounding surface. Any remaining pit slopes would be graded to blend with surrounding areas, and generally would not exceed 15°. Any stockpiled materials would be used to reduce the slopes or be shaped to fit into the existing surroundings. Disturbed areas would be seeded with a native seed mixture to reestablish vegetation. Part of the reclaimed pit is planned for a parking area for the Hurricane Cliffs trail system.

Wildlife:

Wildlife inhabiting the project area would be displaced during the life of the operation. Reclamation of those areas would give some types of wildlife and vegetation a chance to reestablish over the long term. The plant community which re-establishes itself on the site, would differ from the historic vegetation.

Burrowing mammals and reptiles occurring on the site may be killed during mining activities. However these species are generally common and widespread. Negative impacts would be minimal. Most other wildlife species would be displaced during mining.

Traffic:

Access to the Virgin Community Pit is from the Sheep Bridge Road, a dirt road that runs southwest-northeast and connects State Highway 9 and State Highway 59. The Sheep Bridge Road connects with State Highway 9 just west of Virgin and connects with State Highway 59 approximately 1.5 mile southeast of Hurricane. State Highway 9 is a major access route for Zion National Park and State Highway 59 is a major supply route for southern Utah and northwestern Arizona, as well as access to Lake Powell, the Grand Canyon, the Grand Staircase-Escalante, and the Kaibab National Forest, and therefore sees heavy local, recreational, and commercial use. The commercial operators use only the southern access route via the Sheep Bridge Road and State Highway 59, as requested by the Town of Virgin. Commercial haul truck traffic using Highway 59 then passes through the Town of Hurricane to various retail sites.

The transport of palletized flagstone or large slabs by the commercial operators is usually with a flat bed haul truck and trailer (Photograph 4-Appendix B). Operators usually haul 8 to 20 tons per load and make an estimated 400 trips per year. Individuals haul small tonnages of flagstone in pickups or sedans.

CUMULATIVE IMPACTS

Traffic to the Virgin community pit, primarily on the southern access route via the Sheep Bridge Road and State Highway 59 will increase over time as production gradually increases. Increasing mineral material production is also planned from the E. Hurricane cinder community pit, approximately 5 miles to the southeast along State Highway 59 that will increase haul truck traffic. In addition, the Little Creek Knoll Cinder community pit is located approximately 9 miles to the southeast. The pit has been used only on a limited basis but could see increased production, although most of the material produced from Little Creek Knoll is transported in the opposite direction toward Colorado City, AZ.

NO ACTION - "Pit Closure" - Alternative

Under this alternative general sales and permits would cease and the site would eventually be reclaimed and there would be no environmental impacts. Mineral materials are not readily available on private lands and this community pit has produced flagstone for construction and landscaping uses since the 1980's. This alternative would remove a source of needed mineral materials for the rapidly growing St. George area and would be preferred only if undue or unnecessary degradation were shown likely to occur to a resource.

MITIGATION MEASURES

1. The operator is required to obtain any air quality or operational permits required by state, county, or local laws prior to commencing operations. The holder of the contract shall not violate applicable air and water quality standards or related facility siting standards established by or pursuant to applicable Federal or State law. The operator shall ultimately be responsible for dust abatement within the limits of the permitted area and is responsible for consultation with the Authorized Officer and local authorities for acceptable dust abatement and control methods.
2. The operator shall not cause fugitive dust to become airborne without taking reasonable precautions and shall not cause or permit the discharge of visible emissions of fugitive dust beyond the lot line of the property on which the emissions originate.
3. Unpaved haul roads shall be treated with chemical dust suppressant and/or watered as necessary. All dust palliative applied must be not prohibited for ground surface application by the EPA, state and local governments or any applicable law or regulation, as treatment material for reducing fugitive dust emissions. All improvements and maintenance to access roads will be coordinated with Washington County Public Works (e.g., adding a dust suppressant, watering and blading).
4. The operator shall have all vehicles associated with this mining operation to restrict their travel speeds to 25 mph to prevent wildlife impact.
5. No hazardous material or substance will be used or stored on site without specific written authorization of the Authorized Officer. No authorization will be issued for material that is not specifically required for the authorized operations. Solid waste will not be buried, or disposed of on-site, unless permitted. No sewage holding tank discharge will occur on-site, unless permitted. No discharge of oil or other petroleum products is allowed on-site.

6. The operator shall collect, remove, and dispose of all trash, garbage, debris, used oil, and other waste materials. These materials must be disposed of in an approved disposal area. Unnecessary material or equipment, including derelict or non-operational vehicles, empty drums or containers, construction debris, unused equipment or other materials, will be removed immediately from the project area.

7. Should any cultural resources such as: boulders containing rock art, human remains, burial items, structures or features (dark soil containing charcoal or artifacts, wall floor, etc.) be encountered during ground disturbing activities, all activity will cease immediately and the Saint George Field Office will be notified immediately pursuant to 36 CFR 80.11.

8. Proper drainage shall be maintained to avoid areas of standing water. Natural drainage shall not be interrupted and excavated material shall not be placed in drainages where it could be washed downstream.

9. Top soil will be salvaged and stockpiled for future reclamation.

10. Reclamation of all surface disturbances must be initiated immediately upon completion of activities, unless otherwise approved by the authorized officer. Reclamation of disturbed areas shall, to the extent practicable, include contouring disturbances to blend with the surrounding terrain, replacement of topsoil, smoothing and blending the original surface colors to minimize impacts to visual resources, and seed the disturbed areas with a mix specified by the Authorized Officer. The slope will be stabilized to prevent erosion.

11. The project area may require fencing if livestock entering the operation area becomes a problem.

CONSULTATION AND COORDINATION

Russell A. Schreiner, Geologist / Project Lead
Dawna Ferris-Rowley, Asst. Field Office Manager
Kathy Abbott, Realty Specialist
R.J. Hughes, Outdoor Recreation Planner
Kim Leany, Rangeland Management Specialist
Robert Douglas, Wildlife Biologist
Geraldyn McEwen, Archaeology Technician
Lynne Scott, Landscape Architect
David Corry, Natural Resources Specialist

Preparer: Russell A. Schreiner

Date: April 10, 2006

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St. George, UT 84770

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Rigby, Idaho

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Conservancy District
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St. George, UT 84770

PUBLIC COMMENT:

A Notice of Availability for the Environmental Assessment was posted and the document was sent out for comment for 30 days beginning June 19, 2006 and ending July 19, 2006.

One comment was received from Mr. Thomas Bryson of Rigby Idaho who owns private property close to the operations area of the pit. He noted his opposition to the pit as it would have a negative impact to the value of his property that he plans to sell for residential development in a few years.

Figure 1 - INDEX MAP SHOWING THE LOCATION OF THE VIRGIN COMMUNITY PIT

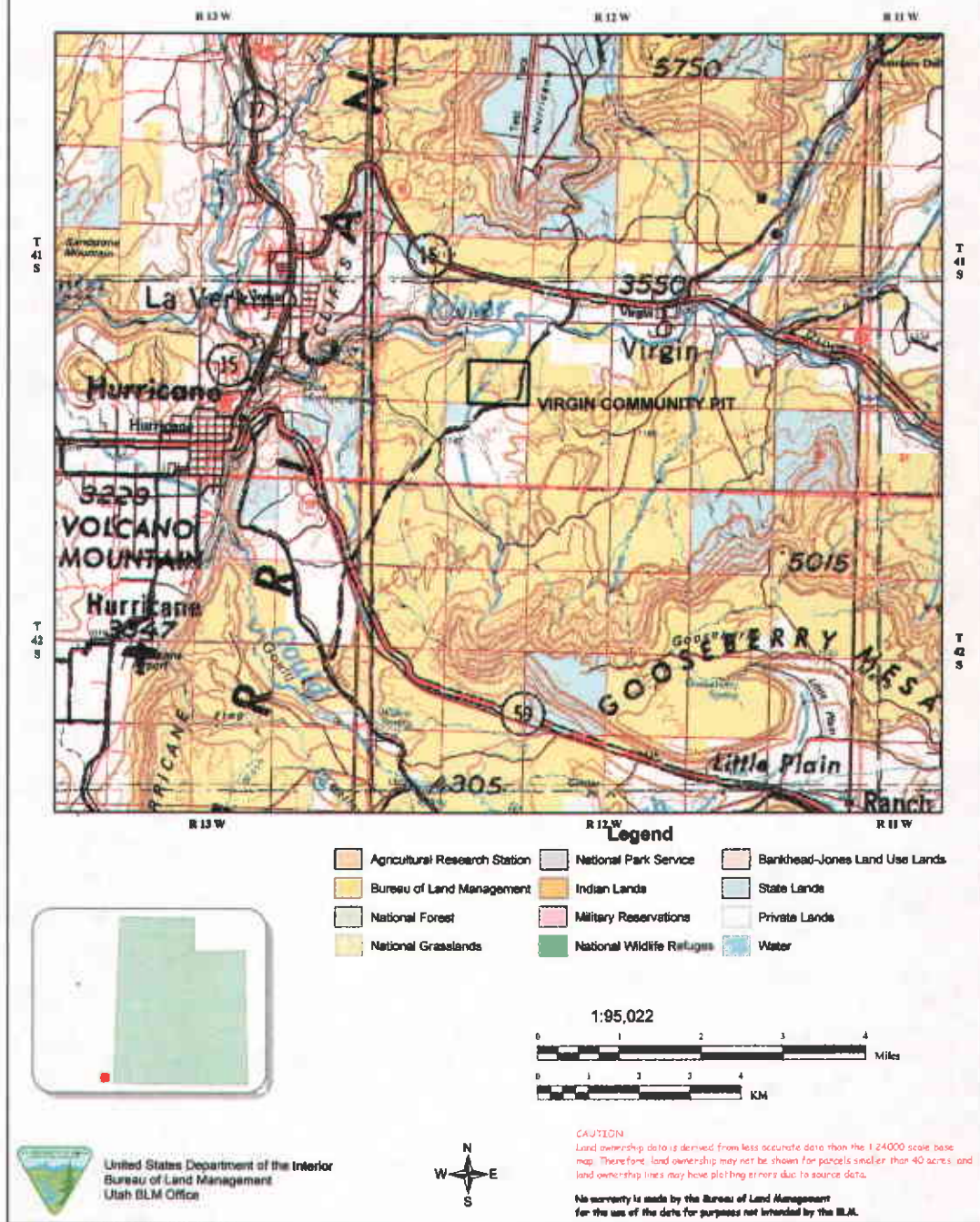
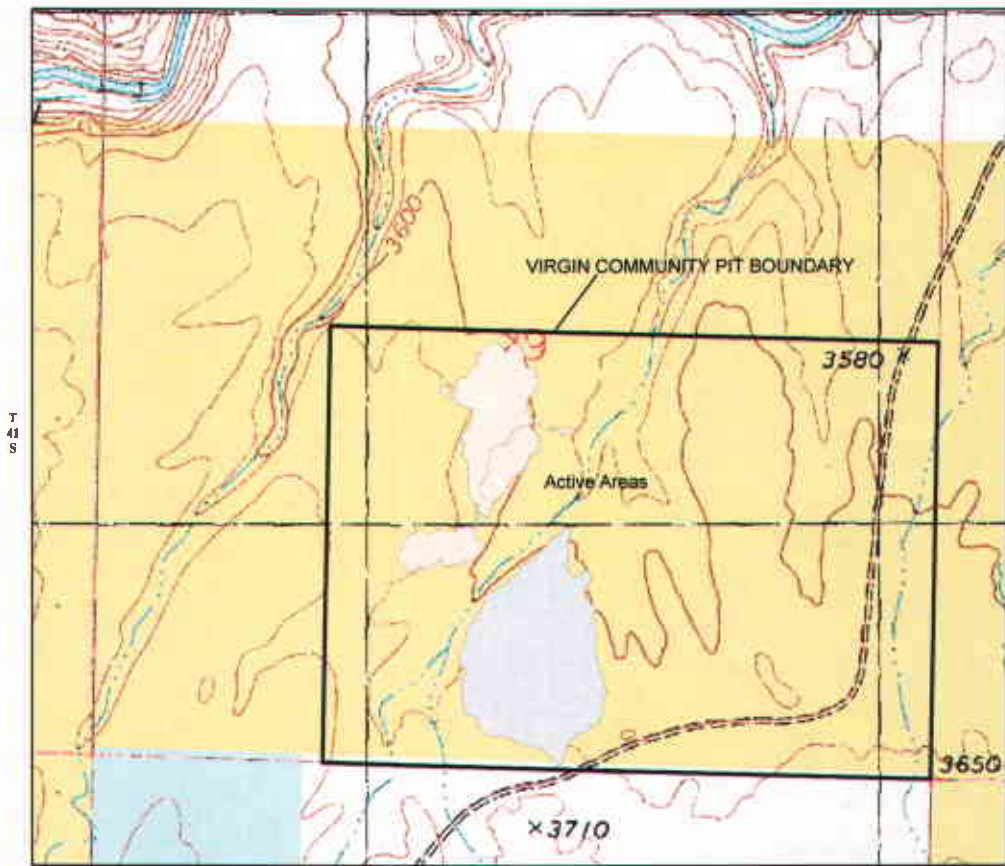


Figure 2 - MAP OF THE VIRGIN COMMUNITY PIT

State of Utah

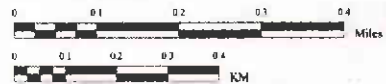


Legend

- | | | |
|-------------------------------|---------------------------|-------------------------------|
| Agricultural Research Station | National Park Service | Bankhead-Jones Land Use Lands |
| Bureau of Land Management | Indian Lands | State Lands |
| National Forest | Military Reservations | Private Lands |
| National Grasslands | National Wildlife Refuges | Water |



1:10,365



United States Department of the Interior
Bureau of Land Management
Utah BLM Office



CAUTION
Land ownership data is derived from less accurate data than the 1:250,000 scale have
map. Therefore, land ownership may not be shown for parcels smaller than 40 acres, and
land ownership lines may have plotting errors due to source data.

No warranty is made by the Bureau of Land Management
for the use of the data for purposes not intended by the BLM.

Map created on April 04, 2004

APPENDICES

APPENDIX A

INTERDISCIPLINARY TEAM ANALYSIS RECORD CHECKLIST

Project Title: Virgin Community Pit
NEPA Log Number: UT-100-06-EA-11
File/Serial Number: U-80541-06
Project Leader: Russell Schreiner

DETERMINATION OF STAFF: (Choose one of the following abbreviated options for the left column)

NP = not present in the area impacted by the proposed or alternative actions
 NI = present, but not affected to a degree that detailed analysis is required
 PI = present with potential for significant impact analyzed in detail in the EA; or identified in a DNA as requiring further analysis
 NC = (DNAs only) actions and impacts not changed from those disclosed in the existing NEPA documents cited in Section C of the DNA form.

Determination	Resource	Rationale for Determination*	Signature	Date
CRITICAL ELEMENTS				
PI	Air Quality	The proposed action would result in short-term increases in fugitive dust due to excavation activities and vehicle travel. If dust emission levels compromise state air quality standards best management practices, ie keeping the roads and excavation site moist would be implemented. In the Long term, no air quality standards would be exceeded..	D Corry	5/16/06
NP	Areas of Critical Environmental Concern	There are no ACECs present in the proposed pit area.	RJ Hughes	04/12/06
NP	Cultural Resources	No cultural sites presents within project area	G.McEwen	05/08/06
NP/NI	Environmental Justice	No disproportionately high or adverse health or environmental impacts would effect low income or minority populations. The Virgin Pit is located on undeveloped public lands, south of the Town of Virgin.	D. Ferris-Rowley	6/6/06
NP	Farmlands (Prime or Unique)		D Corry	5/16/06
NP	Floodplains		D Corry	5/16/06
NI	Invasive, Non-native Species	There are some infestations of Scotch thistle in the nearby area and could easily invade the disturbed areas. Periodic inspections should be made to watch for this and other potential invasive noxious weeds.	K Leany	06/01/06
NP	Native American Religious Concerns	Consultations would be conducted with the Paiute Indian Tribe of Utah, under the terms of the MOU signed in 1999 and other culturally affiliated American Indian Tribes. Should resources or concerns be identified, these would be addressed through project	G.McEwen	5/8/06

Determination	Resource	Rationale for Determination*	Signature	Date
		modifications or the development of appropriate mitigation, through consultations.		
NP	Threatened, Endangered or Candidate Plant Species		Robert Douglas	05/04/06
PI	Threatened, Endangered or Candidate Animal Species	Bald eagles (Federal Threatened Species) use the Virgin River, and adjacent areas (including the project area) on an infrequent basis during the winter months (November to March) for hunting and foraging. California condors (Federal Endangered Species) may use the project area infrequently (not suitable condor habitat) for hunting and foraging. No nests, roosts, or other special use areas for bald eagles, and California condors have been identified in the project area. During the mining operation, bald eagles, and California condors would be displaced to adjacent habitats. Once the area is mined out and restoration completed, they could return to the area for hunting and foraging purposes. There would be a total of 207 acres of general bald eagle, and California condor habitat disturbed over the life of the project.	Robert Douglas	05/04/06
NP	Wastes (hazardous or solid)	No Issues	R Schreiner	06/01/2006
NI	Water Quality (drinking/ground)	The Virgin River is the nearest water source to the project area. It is not anticipated that the proposed action would compromise water quality standards on the river. However the site should be monitored to determine if erosive material is being washed into the river system.	D Corry	5/16/06
NP	Wetlands/Riparian Zones		D Corry	5/16/06
NP	Wild and Scenic Rivers	There are no purposed Wild and Scenic Rivers present in the proposed pit area.	RJ Hughes	04/12/06
NP	Wilderness	There is no Wilderness areas present in the proposed pit area.	RJ Hughes	04/12/06
OTHER RESOURCES / CONCERNS**				
NI	Rangeland Health Standards and Guidelines	Standards would be met provided reclamation is completed and is successful.	K Leany	06/01/06
NI	Livestock Grazing	This is within the Trail Allotment and should not add to the already existing hazards to livestock. However, if problems develop it may become necessary to fence the project area.	K Leany	06/01/06
NP	Woodland / Forestry		K Leany	06/01/06
NP	Vegetation including Special Status Plant Species other than FWS candidate or listed species	Special Status Plant Species not present	Robert Douglas	05/04/06
PI	Fish and Wildlife Including Special Status Species other than FWS candidate or listed species eg. Migratory birds.	The following BLM State Sensitive Species (SSS) may be found in the project area: Ferruginous hawk (permanent resident, fairly common), Short-eared owl (transient, rare), Fringed myotis (permanent resident, uncommon), Kit fox (permanent resident, uncommon), Spotted bat (permanent resident, rare), and Townsend's big-eared bat (permanent resident, fairly common). Some of these species may use the project area year-long, while others may use it part of the year. Besides the above SSS, the following SSS fish species occur in the Virgin River, adjacent to the project, and could potentially be affected by run-off from the project: Virgin spinedace (Conservation Species, permanent	Robert Douglas	05/04/06

Determination	Resource	Rationale for Determination*	Signature	Date
		resident, fairly common), Desert sucker (permanent resident, fairly common), and Flannel-mouth sucker (permanent resident, fairly common). The project area generally supports very little wildlife, due to the sparse vegetative cover and the lack of herbaceous vegetation. Low densities of small mammals, birds, and reptiles are concentrated in the larger washes. Wildlife that typically would be found in this area include: badger, antelope ground squirrels, kangaroo rats, deer mice, desert wood rats, Gambel's quail, mourning doves, common ravens, wrens, house finches, side-blotched lizards, and Western whiptails. Infrequently, larger animals such as raptors, coyotes, and gray fox may pass through the area. During mining of the project area, some small mammals, birds, and reptiles would be killed or disturbed, and some dens, and nests destroyed. Overall impacts to small mammals, birds, and reptiles would be insignificant to populations in the general area. Larger animals would be temporarily disturbed and displaced to adjacent habitats while the mine is being worked. Once the area has been mined and restored, small mammals, birds, and reptiles would re-populate the area. There would be a total of 207 acres of general habitat for SSS, and general wildlife disturbed during the mining operation.		
PI	Soils	The proposed action could potential impact 240 acres of soil. In the Washington County Soil Survey the site has been identified as Yaki-Zukan Complex. Erosion potential in this soil is considered high. During the initial excavation phase some soil might be lost due to wind and water erosion. It is recommended that following excavation of an area erosion structures be constructed ie. small retention sites/ water bars etc.	D. Corry	5/16/06
PI	Recreation	The Hurricane Cliffs area is heavily used by recreational cyclists. Existing trails, both the JEM and Hurricane Rim, could be impacted by an expansion of the current mining area.	Lynne Scott	05/05/06
NI	Visual Resources	The proposed action is within VRM class II area however it is within an established mineral material site. Decision VR-05 in the RMP states that VRM IV objectives will be applied to all established mineral material sites. Reclamation measures proposed for the project will allow the proposed action meet the objectives of VRM class IV.	K Abbott	05/26/2006
NP	Geology / Mineral Resources/Energy Production	No issues	R Schreiner	06/01/2006
NP	Paleontology	No known issues	R Schreiner	06/01/2006
NI	Lands / Access	Access to the pit is by way of Sheep Bridge road maintained by the Town of Virgin and Washington County. There is an authorized trail that is within the project area.	K. Abbott	05/05/2006
NI	Fuels / Fire Management	Would not affect fire management or fuels in this area.	K Leany	06/01/06
PI	Socio-economics	The Virgin Pit provides materials that are important to the regional construction sector and private individuals. Analysis of this is needed in the EA, given the relatively small number of community pits that BLM maintains for flagstone and the high demand.	D. Ferris-Rowley	6/01/06
NP	Wild Horses and Burros		K Leany	06/01/06
NP	Wilderness characteristics	There are no purposed Wild and Scenic Rivers present in the proposed pit area.	RJ Hughes	04/12/06

FINAL REVIEW:

Reviewer Title	Signature	Date	Comments
NEPA / Environmental Coordinator			
Authorized Officer			

Delete the asterisks“” in the checklist and these sentences:*

**Rationale for Determination is required for all “NIs.” Write issue statements for “PIs”*

*** Varies by specific location and BLM Field Office*

APPENDIX B



Photograph 1. Overview of operational area within the Virgin Community Pit, view is looking to the northwest with Hurricane Mesa visible in the distance. The disturbed area (21 acres) in the central part of the photograph is the short term – small tonnage contract area. The smaller disturbance (12 acres) visible in the distance is negotiated sale area. The Sheep Bridge access road is visible in the foreground.



Photograph 2. Overview of the northern edge of Virgin Community pit, showing the resistant tan Timpoweap Member limestone/sandstone that is exposed in the wash that runs through the central area of the pit. The mined limestone bed is found at the base the Lower Red Member approximately 15 feet above the top of the resistant thick tan sandy limestone/calcareous sandstone of the Timpoweap Member.



Photograph 3. View of mining operations along the southern boundary of the community pit, showing excavator sitting on 3 ft thick bench of suitable flagstone. The material above the flagstone bench is a 5 ft to 10 ft thick layer of overburden consisting of mudstone, siltstone, thin limestone, and soil.



Photograph 4. View of mudstone, siltstone and soil overburden (camera case in center is 5 inches long). Excavator is sitting on the flagstone to be mined.



Photograph 5. View of commercial operator hauling 1.5 to 2 ton pallets of sized flagstone.



Photograph 6. View of remaining waste and overburden dump material and drainage the runs through the central part of the pit area.